

Coonoor. One obtained by Carter (Hume's Scrap Book, p. 105.)

Dagshai. Commonest of the two Kestrels (Adams' 'Wanderings of a Naturalist in India', p. 99.)

Sikkim. One from Gammie in B.M.? *naumanni* (F.B.I., Edn. II, v., p. 66.)

Bengal. Not uncommon in the rainy season (Hume, quoting Blyth, Scrap Book, p. 105.)

Calcutta. Four specimens listed 1841-8 (Blyth's Catalogue, p. 16.)

Dibrugarh. Cripps met with six once in March and got two (Hume, S.F., XI, p.4.)

N. Manipur Hills. One examined by Hume (l.c.)

N. E. Cachar. Five seen and one obtained (J. Inglis, S.F., V, p. 5; type of *Tinnunculus inglisi*).

Naga Hills. Obtained by Godwin Austen (Hume, S.F., XI, p. 4.)

Of these records Adam's and Jerdon's are almost certainly erroneous. It will be seen that the question of dates and regularity of occurrence are quite unknown as well as the distribution in British India; neither is it certain whether both *naumanni* and *pekinensis* occur. It will also be noted that there are no recent records.

Mr. Stanford's two specimens are males of the previous year: one shows adult plumage on the head and mantle; in the other the adult plumage on these parts is not quite attained and moult is in progress.

I judge from the deeper colouration and spotless underparts that they belong to the eastern race *pekinensis*.

SAXON HOUSE,
APPLEDORE,
KENT.

CLAUD B. TICEHURST.

September 20, 1932.

XXI.—SOME OBSERVATIONS ON THE NESTING OF A PAIR OF CEYLON SHIKRA HAWKS (*ASTUR* *BADIUS BADIUS GMELIN.*).

The following observations were made in the garden at Humugalla Bungalow, Elkaduwa (3,500 feet), when I was residing there, during 1928.

Early in March, a disturbance had been noticed on several days in and round two large *Tuna* trees growing together at the bottom of the lawn, in front of the bungalow, and before long it was quite evident that a pair of Shikras had chosen, or were considering, these trees as a site for their nest.

For several days the two birds were noticed repeatedly flying in and out among the branches, much chattering was heard, especially in the early mornings, and the birds were quite unusually excited. As the trees were some 50 yards only from the bungalow, observation was kept upon them from time to time from the bungalow windows.

NEST BUILDING.

On the morning of Sunday, March 10th, at about 7.30, the hen bird was observed to fly into the larger *Tuna*, from a nearby *Cassurina*, with a long twig in its talons. It was then ascertained that nest building had already commenced. She was seen to make her way into the centre of a clump of *Loranthus*, a mistleto-like parasite, towards the top of the tree and examination with field-glasses revealed that a few small twigs had been collected here and placed as a foundation for a nest.

The site selected appeared to be almost ideal—a fork, some 30 to 40 feet from the ground, in a large upstanding branch, reinforced by a knot and the stems of the *Loranthus* parasite.

The hen bird was now most enthusiastic over her building. No sooner was one twig in place than she flew back to the *Cassurina* for another. The twigs brought by her were apparently mostly dead or very nearly so; they were broken off by the hawk, herself, tugging at them with such force that, on several occasions, she fell backwards off her perch when the break came suddenly. Though broken off with her beak, most twigs were transferred to her talons, either before commencing the short flight back to the *Tuna* or else in mid-air, but one or two small twigs were carried the whole distance in her beak.

The greater number of the twigs used were those of the *Cassurina* but on one or two occasions she was observed to break off dead twigs from some of the close by clumps of *Loranthus*.

While the hen bird was showing so much enthusiasm over her building, the cock bird appeared to be rather bored. He generally remained somewhere in the vicinity and watched his mate at her labours, or he took a short fly round, returning after a few minutes to note her progress. Only on three or four occasions was he observed to deign to help her. Three times he was seen with a twig—a very small twig—in his beak. Once he found the hen bird at the nest when he arrived back in the tree, so he dropped his burden and flew away again. But on two other occasions he added his very small contribution to the slowly increasing pile.

It was noticed that, until the nest was nearing completion, only one bird would approach it at a time; if the hen bird was at it, the cock would not approach within yards, and if the cock bird was inspecting it, when the hen bird returned, she would wait for him to leave before approaching closely.

Building operations were, as far as I was able to observe, only carried on for about three hours during each morning; for the rest of the day the birds were generally somewhere in the vicinity but they did nothing to add to the structure.

The nest appeared to be completed on the eighth day. On Monday 18th, the hen bird was seen to add one or two small twigs, early in the morning, but they were merely finishing touches as, after that morning, she was not seen to bring in any further material.

MATING.

During the whole of the time that the nest building was in progress, mating continued intermittently. The act of mating was witnessed on several occasions and was heard taking place on many more; it was always accompanied by excitement and noise. The act was accomplished amidst much 'chittering' on the part of both birds and much flapping and fluttering of wings on the part of the male bird.

I am under the impression that mating was taking place on each of the three or four days during which the birds were creating so much noise and disturbance, prior to the commencement of nest building. But the first occasion on which I actually witnessed the act was on the afternoon of the day on which building commenced. It continued, intermittently, always accompanied by the same fuss and noise, until the completion of the nest. The last day on which I observed the act was the 19th, the day after the last day on which the hen bird was observed carrying nest materials. The act took place three or four times a day—but never during the time when nest building was actually in progress.

FEEDING.

On two occasions the male bird was seen to bring food for the use of his mate; once before the nest was completed and once afterwards. On each occasion he brought the food into the tree adjoining and called his mate from her nest, departing as soon as she appeared. I was unable to distinguish, with certainty, the food brought but it appeared to be a small bird and a lizard, respectively.

BEHAVIOUR OF OTHER BIRDS.

It was interesting to note what little notice the small birds of the immediate vicinity took of the two hawks, once they had got used to their presence. The hawks were decidedly noisy and were continually flying in and out of the *Tuna* trees, yet the small birds took extraordinary little notice of or interest in them. Occasionally they would utter a few alarm notes and become a little restless but generally they continued their search for their own food, among the other *Loranthus* clumps and seed clusters of the *Tuna* trees, with remarkably little concern.

One day I observed a White-eye (*Zosterops ceylonensis*) actually hopping about the foundations of the nest while the female hawk was within a yard of him—but apparently the hawk regarded this as impudence, for she flew at him and drove him away! Another time, a small bird, of uncertain species, was hopping about among the foliage within three feet of the hawk while she was pulling to pieces an offering from her mate.

On the morning of the 21st, the nest was visited and was found to contain three eggs, plain bluish white in colour with no markings. The nest was constructed entirely of twigs, with rather finer *Cassurina* twigs as a lining.

GAMMADUWA,

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CEYLON.

September 25, 1932.